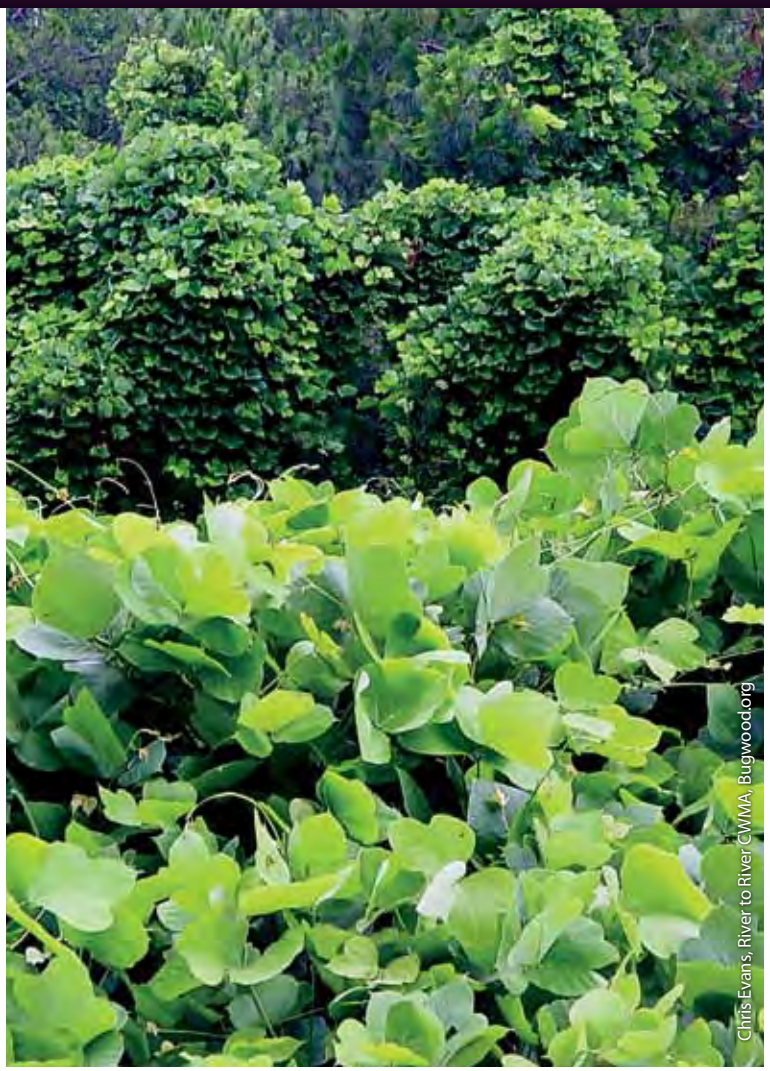
Kudzu



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Background, Life History

Kudzu (*Pueraria montana*) is a climbing, semi-woody, perennial vine of the legume family. Originally imported from Japan and China in the early 1900s, kudzu was utilized for ornamental purposes and as a forage crop for livestock in the southern United States. During the Great Depression, kudzu was heavily promoted for erosion control. In Missouri, kudzu was planted along highways to control erosion and as forage prior to 1970. Today it can be found in isolated populations within select counties primarily along highways.

Kudzu grows well under a wide range of conditions and in most soil types, except for saturated soils. Preferred habitats are forest edges, abandoned fields, roadsides and disturbed areas, where sunlight is abundant. Kudzu grows best where winters are mild and summers are hot. Harsh winters can kill young stems, but root crowns will re-sprout.

Kudzu stems are yellow-green with dense, erect, golden hairs and matted, silver hairs. As stems mature, they become ropelike, light gray to brown and hairless. Mature vines develop massive taproots able to penetrate up to 12 feet in depth. Leaves are alternate, with three broad leaflets up to 9 inches in length. Leaflets may be entirely or deeply two- or three-lobed with hairy margins. Fragrant purple flowers form in clusters from June to September. Only vines in full sun will flower. Flattened, hairy legume pods contain three to 10 oval seeds, few of which are viable.

Kudzu reproduces primarily by vegetative means. Numerous individual vines trail and climb from a single large, ball-like central root crown. Vines in contact with the soil will root at the nodes to form a new root crown and new stems. New vines also sprout from rhizomes.

Impacts

Once established, kudzu plants grow prolifically, with a single root crown containing up to 30 vines. Kudzu rampantly spreads to form dense mats over the ground, shrubs, mature trees and buildings, reaching more than 60 feet high. Kudzu kills or degrades other plants by smothering them under a solid blanket of leaves that allow little light to penetrate. It can girdle shrubs and trees, break branches and uproot entire trees under its weight.

Kudzu is identified by numerous trailing vines originating from a large central root crown, and by its large leaves, which are divided into three leaflets.

Clusters of purple flowers produce few viable seeds.

Kudzu vines form dense mats and smother existing vegetation.

Control

Typical mechanical treatments are not likely to be successful on kudzu. Therefore, few options remain except herbicide applications. Although herbicide applications can be conducted any time the vine is actively growing, foliar applications of clopyralid in the late summer or early fall when nutrients are being transported to the root system are one of the most effective treatments. In mature populations, aerial vines should be controlled first using cut-stump or basal-bark treatment methods.

Basal-bark treatment can be done for smaller vines less than 2 inches in diameter by spraying two feet of vine near ground level with triclopyr mixed with an oil or diesel fuel. For cut-stem treatments, cut individual vines at ground level and apply herbicide to the cut stem. Effective herbicides include triclopyr, picloram plus 2,4-D, or glyphosate. Both methods can be utilized during the dormant season. Re-sprouting should be controlled with clopyralid or triclopyr applications to the foliage.

Identifying Kudzu

- fast-growing, climbing vines
- hairy vines and leaves
- large-lobed leaves are alternate and trifoliate (consisting of three leaflets)
- inconspicuous reddish purple flowers on climbing vines
- brown, flattened, hairy seed pod with three to 10 seeds

Native Look-alikes

Large poison ivy (*Toxicodendron radicans*) leaves and vining stems look similar to kudzu, but kudzu stems and leaves are much more conspicuously hairy. Round-leafed beggar's tick (*Desmodium rotundifolium*) and hog peanut (*Amphicarpaea bracteata*) might be confused with a young plant of kudzu, but these trailing legumes do not grow longer than 5 feet and leaflets are seldom more than 3 inches long.

For Additional Information

www.invasivespeciesinfo.gov/plants/kudzu.shtml

www.fs.fed.us/database/feis/plants/vine/puemonl/all.html

www.mdc.mo.gov/node/5524

www.MissouriConservation.org
For more information or to report a population, contact your local Missouri Department of Conservation office, e-mail **WildlifeDivision@mdc.mo.gov**, or write:

Kudzu
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W00055 5/2011